

AMENDMENTS TO THE CLAIMS:

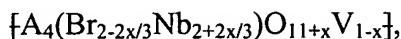
This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A ceramic material comprising: ~~composed of~~
[[-]] a first ceramic material ~~with~~ having a perovskite structure ~~as the~~ and defining a
host lattice, ~~containing the first ceramic material comprising~~ lead, zirconium and titanium;
and
[[-]] a second ceramic material ~~with~~ having a cryolite structure.

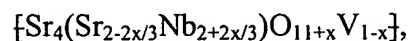
2. (Currently Amended) The ceramic material ~~per of claim 1, wherein in which~~
the first ceramic material and the second ceramic material ~~form~~ comprise a mixed crystal
phase.

3. (Currently Amended) The ceramic material ~~per of claim 1 one of claims 1 or 2,~~
~~in which wherein~~ the second ceramic material comprises ~~has the general formula~~



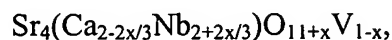
where A ~~stands for~~ comprises barium or strontium, and ~~where~~ B comprises ~~for~~ strontium or calcium, and ~~where~~ V ~~for~~ comprises an oxygen vacancy, and ~~where we have for the~~ parameter ~~x~~: $0 \leq x \leq 1$.

4. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which~~ wherein the second ceramic material comprises ~~has the summary formula~~



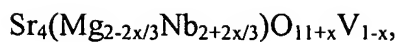
where V ~~stands for~~ comprises an oxygen vacancy, and ~~where we have for the~~ parameter ~~x~~:
 $0 \leq x \leq 1$.

5. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which~~ wherein the second ceramic material comprises ~~has the summary formula~~



where V ~~stands for~~ comprises an oxygen vacancy, and ~~where we have for the~~ parameter ~~x~~:
 $0 \leq x \leq 1$.

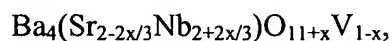
6. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which~~ wherein the second ceramic material comprises ~~has the summary formula~~



where V stands for comprises an oxygen vacancy, and where ~~we have for the parameter x:~~

$$0 \leq x \leq 1.$$

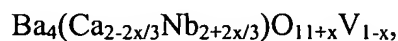
7. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which wherein~~ the second ceramic material comprises ~~has the summary formula~~



where V stands for comprises an oxygen vacancy, and where ~~we have for the parameter x:~~

$$0 \leq x \leq 1.$$

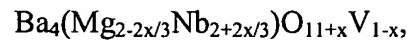
8. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which wherein~~ the second ceramic material comprises ~~has the summary formula~~



where V stands for comprises an oxygen vacancy, and where ~~we have for the parameter x:~~

$$0 \leq x \leq 1.$$

9. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 or 2,~~
~~in which wherein~~ the second ceramic material comprises ~~has the summary formula~~



where V stands for comprises an oxygen vacancy, and where ~~we have for the parameter x:~~
 $0 \leq x \leq 1$.

10. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 to~~
~~9, in which wherein~~ the first ceramic material comprises ~~contains a composition of~~
~~summary formula~~ $\text{Pb}(\text{Zr}_a\text{Ti}_{1-a})\text{O}_3$, and where $0.5 \leq a \leq 0.6$ ~~we have for a: $0.5 \leq x \leq 0.6$.~~

11. (Currently Amended) The ceramic material per of claim 1 ~~one of claims 1 to~~
~~10, in which wherein~~ the first ceramic material ~~consists of~~ comprises a mixed crystal
phase, ~~which is composed from~~ the first ceramic material comprising a PZT ceramic and
an ~~added~~ additional component ~~of the~~ having a perovskite lattice-type structure.

12. (Currently Amended) The ceramic material per of claim 11, wherein in which
~~the added~~ additional component ~~has the summary formula~~ comprises KNbO_3 .

13. (Currently Amended) The ceramic material per of claim 11, in which wherein
~~the added~~ additional component comprises ~~has the summary formula~~ $\text{Pb}(\text{M}^{\text{II}}_{1/3}\text{M}^{\text{V}}_{2/3})\text{O}_3$,

~~and wherein~~ where M^{II} ~~stands for~~ comprises Mg, Zn, Co, Ni, Mn, or Cu, and where M^V ~~for~~ comprises Nb, Ta, or Sb.

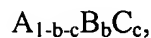
14. (Currently Amended) The ceramic material ~~per of~~ claim 11, in which wherein the ~~added~~ additional component comprises ~~has the summary formula~~ $Pb(M^{II}_{1/2} M^{VI}_{1/2})O_{3.2}$ ~~and wherein~~ where M^{II} ~~stands for~~ comprises Mg, Zn, Co, Ni, Mn, or Cu, and where M^{VI} ~~for~~ comprises W.

15. (Currently Amended) The ceramic material ~~per of~~ claim 11, in which wherein the ~~added~~ additional component ~~has the summary formula~~ comprises $Pb(M^{III}_{1/2} M^V_{1/2})O_{3.2}$ where ~~and wherein~~ M^{III} ~~stands for~~ comprises Fe, Mn, Cr, or Ga, and where M^V ~~for~~ comprises Nb, Ta, or Sb.

16. (Currently Amended) The ceramic material ~~per of~~ claim 11, in which wherein the ~~added~~ additional component ~~has the summary formula~~ comprises $Pb(M^{III}_{2/3} M^{VI}_{1/3})O_{3.2}$ ~~and wherein~~ where M^{III} ~~stands for~~ comprises Fe, Mn, Cr, or Ga, and where M^{VI} ~~for~~ comprises W).

17. (Currently Amended) The ceramic material ~~per of~~ claim 11, in which wherein the ~~added~~ additional component ~~has the summary formula~~ comprises $Pb(Li^{I}_{1/4} M^V_{3/4})O_{3.2}$ ~~and wherein~~ where M^V ~~stands for~~ comprises Nb, Ta, or Sb.

18. (Currently Amended) A ceramic material per claim 1 to 17, in which the ceramic material has the summary formula comprising a material having a formula of



where $0 \leq b \leq 0.5$ and $0 \leq c \leq 0.01$;

wherein:

[[-]] A ~~stands for the composition~~ comprises $Pb(Zr_aTi_{1-a})O_3$, where and $0.5 \leq a \leq 0.6$;

[[-]] B ~~stands for~~ comprises an added additional component having a of the perovskite lattice-type structure; and

[[-]] C ~~stands for~~ comprises a ceramic material of having a cryolite lattice-type structure.

19. (Currently Amended) The ceramic material per of claim 18, which additionally contains also a further comprising PbO excess of up to 3 mol.% of PbO.

20. (Currently Amended) The ceramic material per of claim 18 one of claims 1 to 19, which is substantially free of $KNbO_3$.

21. (Currently Amended) A piezo-actuator comprising:

[[-]] having a ~~monolithic~~ stack comprised of superimposed piezoelectrical
piezoelectric ceramic layers (2) and electrode layers interspersed among the piezoelectric
ceramic layers; (3) lying in between;

wherein at least one of the piezoelectric ceramic layer layers comprises (2) contains
a ceramic material according to claim 1 ~~one of claims 1 to 19~~.

22. (Currently Amended) A method ~~for production of~~ producing a ceramic
material ~~per one of claims 1 to 20~~, the ceramic material comprising (i) a first ceramic
material having a perovskite structure and comprising a host lattice, the first ceramic
material comprising lead, zirconium and titanium, and (ii) a second ceramic material
having a cryolite structure, wherein the method comprises:

mixing wherein a precursor materials material of a the second ceramic material
~~with a cryolite structure are mixed~~ with a precursor materials material of the first ceramic
material a PZT ceramic.

23. (Currently Amended) The method of claim 22 ~~for production of a ceramic~~
~~material per one of claims 1 to 20~~, wherein a the precursor material of the second ceramic
material comprises a previously-prepared cryolite phase ~~is mixed with precursor materials~~
~~of a PZT ceramic.~~

24. (New) The ceramic material of claim 1 which is substantially free of KNbO_3 .

25. (Currently Amended) A piezo-actuator comprising:

a stack comprised of piezoelectric ceramic layers and electrode layers interspersed
among the piezoelectric ceramic layers;

wherein at least one of the piezoelectric ceramic layers comprises a ceramic
according to claim 18.